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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,553	11/21/2003	Richard Albert Jones	604-700	8476

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EXAMINER	
COLE, ELIZABETH M	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/717,553	JONES ET AL.	
	Examiner	Art Unit	
	Elizabeth M. Cole	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 27-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/477,122 in view of Alei, U.S. Patent No. 4,600631. The claims of 10/477,122 disclose the invention except they do not recite crosslinking the oriented polymer and do not recite the amount of the polymer which melts and binds the fibers. With regard to the amount of the polymer melt, it would have been obvious to have melted a sufficient amount to provide strong bonds between the fibers. Alei teaches that crosslinking the oriented fibers before molding enhances the thermal stability of the fibers.

This is a provisional obviousness-type double patenting rejection.

3. Claims 27-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 27, it appears that in line 4 that the

limitation "wherein both fibers are recrystallized melt phase" should read "wherein both fibers and recrystallized melt phase"

4. Claims 27-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-16 of copending Application No. 10/496,500 in view of Alei, U.S. Patent No. 4,600,631. Claims 10-16 of '500 disclose the claimed invention except that they do not recite crosslinking the polymer and do not disclose the amount of polymer melt which binds the fibers. With regard to the amount of the polymer melt, it would have been obvious to have melted a sufficient amount to provide strong bonds between the fibers. Alei teaches that crosslinking the oriented fibers before molding enhances the thermal stability of the fibers.

This is a provisional obviousness-type double patenting rejection.

5. Claims 27-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 16-22 of copending Application No. 10/496,294 in view of Alei, U.S. Patent No. 4,600,631. Claims 16-22 of '294 disclose the claimed invention except that they do not recite crosslinking the polymer and do not disclose the amount of polymer melt which binds the fibers. With regard to the amount of the polymer melt, it would have been obvious to have melted a sufficient amount to provide strong bonds between the fibers. Alei teaches that crosslinking the oriented fibers before molding enhances the thermal stability of the fibers.

This is a provisional obviousness-type double patenting rejection.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al, U.S. Patent No. 5,628,946 in view of Alei et al, U.S. Patent No. 4,600,631. Ward et al discloses a homogenous polymeric monolith which is formed by compressing an assembly of oriented polyolefin fibers at an elevated temperature in order to melt a proportion of the polymer which then recrystalizes and binds the fibrous material. See abstract, as well as col. 1, lines 39-67. The proportion of polymer which is melted can be anywhere from 5 to 5% of the polymer. See col. 2, lines 15-21. Suitable polymers include polyethylenes having a weight average molecular weight of from 50,000 to 3,000,000. See col. 3, lines 52-54. The polymer fibers are melt spun. See col. 4, lines 14-27. With regard to claim 33, the limitation of "up to" means that no filler can be present. Ward et al differs from the claimed invention because Ward et al does not teach crosslinking the polymeric fibers and does not teach the claimed gel fraction. Alei discloses molded polymeric materials comprising a molding formed from oriented polyolefin fibers. Alei teaches that crosslinking the fibers enhances the thermal stability of the fibers and to maintain the orientation of the fibers. See abstract. Alei teaches that the crosslinking can be performed by irradiation. See 2, lines 36-59. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to have crosslinked the fibers of Ward. One of ordinary skill in the art would have been motivated to crosslink the fibers of Ward by the teaching of Alei that this would enhance the thermal stability and maintain the orientation of the fibers. With regard to the gel fraction, to have selected the appropriate gel fraction through the process of routine experimentation in order to arrive at a gel fraction which produced optimum thermal stability and maintained the orientation of the fibers without negatively affecting the ability of the fibers to melt and bond.

8. Applicant's arguments filed 7/15/05 have been fully considered but they are not persuasive. Applicant argues that the combination of Ward and Alei does not render the claimed invention obvious because Alei teaches that crosslinking turns a thermoplastic material into a thermosetting resin so that the thermoplastic material no longer melts when heated. However, Ward teaches forming the compressed assembly of oriented fibers which are bound together by a portion of the fibers which is melted and recrystalizes and binds the fibers together. Therefore, the melting and bonding of the fibers of Ward would already be complete before the crosslinking process was undertaken. Alei teaches that the crosslinking process further strengthens and stabilizes the thermoplastic material. The crosslinking process would not be undertaken until the material was in finished form. It is noted that the claims recite that the fibers and recrystalized melt phase are derived from molecularly oriented fibers in a precursor assembly. The claims do not require that the fibers are crosslinked until the compressed assembly is formed. Therefore, the rejection is maintained.

9. With regard to the double patenting rejections over the co-pending applications, these are maintained at this time. If in the future all other issues are resolved and the case is ready for issue and none of the co-pending application have been issued at that time, then the rejections will be withdrawn.

10. The terminal disclaimer filed on 7/15/05 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,548,727 has been reviewed and is accepted. The terminal disclaimer has been recorded.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c